

MISCELLANEOUS.

Ad Historiam Cucumariæ. By F. JEFFREY BELL.

I. *Cucumaria* v. *Pentacta*.

IN his valuable work on the Echinodermata, now in course of publication as part of Bronn's 'Klassen u. Ordnungen,' Prof. Ludwig remarks as a footnote to *Cucumaria*, "Streng genommen musste diese Gattung den älteren Namen *Pentacta* führen;" and he goes on with an enviable courage, "Der jüngere Name *Cucumaria* ist aber so allgemein in Gebrauch, dass er sich wohl nicht mehr wird verdrängen lassen." It is well, however, to be right at law as well as in equity, and I may therefore point out that "streng-genommen" *Pentacta* should replace *Colochirus*, for the sole type given by Goldfuss (Zool. i. p. 177) is *Actinia doliolum*, which, as Dr. v. Marenzeller (Abh. zool.-bot. Ges. Wien, xxiv. (1874), p. 303) has shown, is a *Colochirus*.

Cucumaria, then, is not to be displaced. I may add that *Colochirus* has been in possession for nearly half a century: with some systematists that fact may have weight.

The statement of Prof. Verrill that "*P. pentactes*, Jaeg.. of Europe is properly the type of the genus *Pentacta*" rests upon a misapprehension; Jaeger himself says "*Goldfuss hujus nominis autor est.*"

This correction will take us further, for it disposes of Verrill's suggestion that *Pentacta* should be used for the stichopodous and *Cucumaria* for the sporadipodous species of "*Cucumaria*" of authors—a suggestion which, by the way, Dr. Lampert should have remembered when he used *Cucumaria* in Verrill's sense of *Pentacta*.

II. *On the Meaning of the Term "Le fleurilardé."*

Among the many difficulties which surround the clear discrimination of *Cucumaria pentactes* is the meaning of Diequemare's "*Le fleurilardé*"*. Since his time it is only rarely that the term has been correctly given, his "*le fleurilardé*" being written "*la fleurilarde*" by Cuvier and Lamarck and "*l'holothurie fleurillade*" by de Blainville. The compilers of French dictionaries have either, as is also the case with Littré and the French Academy, omitted the word, or, as in the *Dict. des diet.* and the *Diet. nation.*, have "*fleurilbarde*," "*Ver radiaire du genre des holothuries*," while "*fleurilarde*" is a "*Zoophyte perdrigon violet tuberculeux*." Valmont-Bomare (to whose work I was referred by my former colleague Professor Mariette), in his '*Dictionnaire raisonné universel d'histoire naturelle*,' ed. 1791, vol. iii. p. 477, writes "*Fleuri-lardé*," and he says, "*Le nom qu'il (Diequemare) a donné à cet animal en fait une sorte de description . . . les trois doubles rangs des pieds qui sont aux côtés et au-dessous, au milieu de sa largeur, sont blancs, et présentent, à la forme près, l'effet d'un lièvre lardé ou piqué*,"—which is, after all, but a quotation from the original description. I should be glad to hear of any other references to the name; the very considerable search I have made myself has had no more result than this.

* *Observ. sur la Physique*, xii. (1778), p. 283.

“*Eupodosaurius longobardicus*.”

The specimen noticed and figured under the above name in the last number of the ‘Annals’ (p. 292) turns out to belong to *Lariosaurus Balsani*, and has been figured by Curioni (Mem. Ist. Lomb. ix. 1863, pl. vii. fig. 1). I am indebted to the inquiries made at the Milan Museum by my friend Dr. J. de Bedriaga for this identification. Although I had examined the foot on the plaster cast of the entire *Lariosaurus Balsani* in the British Museum, the appearance, especially of the distal phalanges, differed so greatly from the College of Surgeons specimen that the identification of the two never occurred to me.

G. A. BOULENGER.

Oct. 13, 1891.

On the Habits of Gobius minutus *. By FRÉDÉRIC GUTTEL.

Gobius minutus is found in abundance in the pools of water left by the ebbing sea on the sandy beaches of Roscoff. The habits of this little fish at the time of reproduction are extremely curious; they have been observed with the greatest accuracy, owing to the extremely favourable conditions afforded by the great aquarium of the station at Roscoff for this kind of observation. The water flowing in abundance through the tanks, the animals live in them as in the natural state.

The sexes are distinguished by constant differences in the coloration of the dorsal and anal fins. In the female the two dorsals are transparent and only marked with some small black dots situated upon their rays: the anal is perfectly transparent. In the male, on the contrary, the two dorsals bear three or four almost horizontal white bands, separated by two or three black bands. Moreover the first dorsal, which, as in the female, has six rays, presents two spots of a fine blue, each limited towards the base by a black crescent which is outlined by a white crescent. One of these spots is situated between the fourth and fifth rays, the other between the fifth and sixth; sometimes the second is wanting. Finally the anal is largely bordered with black.

If a female ready to lay, a male in the reproductive state, and a shell of *Cardium* or of *Tapes* are placed in an aquarium with its bottom covered with sand, the male is not long in introducing himself beneath the shell, only letting his head protrude beneath its rim. From time to time he enters his little mansion, drives out a large part of the sand which it contains by a rapid agitation of his tail, and even brings in his mouth small stones, shell débris, or small quantities of sand which he shoots out over the threshold of his domicile. Then he sets to work to conceal his shell completely. For this purpose he leaves it, places himself above, and, steering in a straight line, moves over the sand with a rapid agitation of his pectorals and his tail, so as to project behind him a wave of sand which accumulates on the shell. The track of his passage in the sand is marked by a deep furrow.

After he has scooped out the first furrow he reenters his house,

* The observations which form the subject of this note were made in the aquarium of the Laboratory at Roscoff (Finistère).